

ABSTRACT:

Geogrid or Mesh Structure

To make an oriented plastics material geogrid 10 in which oriented strands 6, 9 form triangular meshes with a junction 11 at each corner and six of the strands 6, 9 meet at each junction 11, a plastics material sheet starting material 1 has holes 2 in an array of hexagons 3, opposite holes 2 of each hexagon being aligned in the machine direction, and the starting material 1 is stretched first in the machine direction and secondly in the transverse direction. In the eventual geogrid 10, the centre portions of the hexagons in the starting material 1 form the junctions 11. The centres of the junctions 11 are slightly biaxially oriented, but at the edges of the junctions 11, the orientation of the edge of substantially each strand 6 or 9 runs around the edge of the respective junction 11 and into the edge of the next strand 6 or 9. During the second stretch, restraint can be applied in the first stretch direction and discontinued before the material is allowed to relax in the second stretch direction. If desired, the procedure can be terminated after the first stretch, to produce a uniaxially-oriented geogrid. By using a starting material 21 which has through holes 22 and weakened zones 23, it is possible to form the geogrid of the invention from a starting material 21 having a rectangular array of through holes 22.